

ENGINEERING DESIGN FILE

Project/Task RWMC PERFORMANCE ASSESSMENT

Subtask \_\_\_\_\_

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Subject : WELL PARAMETERS FOR INTRUDER DRILLING SCENARIO AT RWMC

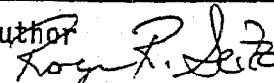
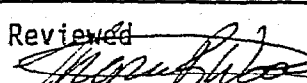
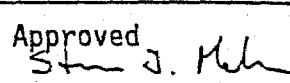
Abstract:

Site-specific well parameters are provided for an inadvertent intruder drilling at the RWMC. Data on residential and farm (irrigation) wells are included. Parameters included are: hole diameter as a function of depth, depth to water, depth of penetration into aquifer, and time required to drill and develop well. The data are based on discussions with an Idaho Falls drilling contractor (Andrews Well Drilling Services, 75 years experience in the area), and two experienced INEL hydrologists (T. R. Wood and J. T. Barraclough). The contractor was asked to assume that a local farmer needed a well; thus, the data are based on a minimum cost well.

Distribution (complete package)

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RWMC PA Project File

Distribution (cover sheet only): Project EDF file log, EDF serial no. log

Author  Roger R. Seitz	Dept. SEM 8/9/91	Reviewed  Thomas R. Wood	Date 8/9/91	Approved  Steven J. Maheras	Date 08/12/91
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WELL DATA FOR INTRUDER AT RWMC  
(based on input from ANDREW Well Drilling Services,  
Tom Wood, and Jack Barraclough)

Assume air rotary drilling (10 - 12 hours per day)

	<u>Residential</u>	<u>Irrigation</u>
Depth to Aquifer	-590'	-590'
Hole Diameter		
Depth - 0' - 380'	8"	22"*
380' - 590'	6"	18"
Depth of Open Hole in Aquifer (Diameter)	40' (6")	150' (18")
Time to Drill and Develop Well **	3-4 days (use 48 hours)	14-15 days (use 160 hours)

\* Air rotary is not currently used for 22" hole in this area (18" max), but ANDREW Well Drilling Services was confident technology would be available in a short time (much less than 100 years) and felt it was a reasonable assumption

\*\* Times are to be used for direct exposure to contaminated cuttings (ANDREW Well Drilling Services said they typically dump cuttings in a pile near the rig and expect the farmer to remove or spread them out).

